

D Barry Kirkham, QC⁺
Duncan J Manson⁺
Daniel W Burnett, QC⁺
Ronald G Paton⁺
Gregory J Tucker, QC⁺
Terence W Yu⁺
James H McBeath⁺
Edith A Ryan⁺
Daniel H Coles

Robin C Macfarlane⁺
Alan A Frydenlund, QC⁺^{*}
Harvey S Delaney⁺
Paul J Brown⁺
Karen S Thompson⁺
Harley J Harris⁺
Paul A Brackstone⁺^{*}
James W Zaitsoff⁺
Jocelyn M Bellerud

Josephine M Nadel, QC⁺
Allison R Kuchta⁺
James L Carpick⁺
Patrick J Haberi⁺
Gary M Yaffe⁺
Jonathan L Williams⁺
Scott H Stephens⁺
Pamela E Sheppard⁺
Katharina R Spatzl

James D Burns⁺
Jeffrey B Lightfoot⁺
Christopher P Weafer⁺
Michael P Vaughan
Heather E Maconachie
Michael F Robson⁺
Zachary J Ansley⁺
George J Roper
Patrick J O'Neill

OWEN BIRD
LAW CORPORATION

PO Box 49130
Three Bentall Centre
2900-595 Burrard Street
Vancouver, BC
Canada V7X 1J5

Telephone 604 688-0401
Fax 604 688-2827
Website www.owenbird.com

Direct Line: 604 691-7557
Direct Fax: 604 632-4482
E-mail: cweafer@owenbird.com
Our File: 23841/0160

Carl J Pines, Associate Counsel⁺
Rose-Mary L Basham, QC, Associate Counsel⁺
Douglas R Johnson, Associate Counsel⁺
Kari F Richardson, Associate Counsel⁺
Hon Walter S Owen, QC, QC, LLD (1981)
John I Bird, QC (2005)

^{*} Law Corporation
^{*} Also of the Yukon Bar

April 20, 2017

British Columbia Utilities Commission
6th Floor, 900 Howe Street
Vancouver, B.C.
V6Z 2N3

**Attention: Patrick Wruck, Commission Secretary and Manager,
Regulatory Support**

Dear Sirs/Mesdames:

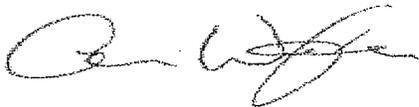
Re: BC Hydro Supply Chain Application – Project No. 3698901

We are counsel to the Commercial Energy Consumers Association of British Columbia (CEC). Attached please find the CEC's Information Requests to ABB Enterprise Software with respect to the above.

If you have any questions regarding the foregoing, please do not hesitate to contact the undersigned.

Yours truly,

OWEN BIRD LAW CORPORATION



Christopher P. Weafer

CPW/jj
Enclosures
cc: CEC
cc: BC Hydro
cc: Registered Interveners

**COMMERCIAL ENERGY CONSUMERS ASSOCIATION
OF BRITISH COLUMBIA**

**INFORMATION REQUEST ON
ABB ENTERPRISE SOFTWARE (“ABB”)
INTERVENER EVIDENCE**

BC Hydro Supply Chain Application - Project No. 3698901

1. Reference: Exhibit C3-3 page 2

The 13 gaps, identified by BC Hydro as part of their review, are not true Asset Suite software “gaps,” but issues derived from ineffective or incomplete use of current software. Thus, the Passport option (known as Alternative 2) does not reflect accurate scoring. If BC Hydro bases its cost/benefit analysis on erroneous gaps, then there is a high likelihood of less benefit and more cost than anticipated in replacing Asset Suite with the SAP system. It is ABB’s strong belief and experience that an upgrade of Asset Suite is a far more cost-effective means of capturing the benefits of eliminating or reducing the impacts of the 13 identified gaps.

It is important to note that the scoring and weighting of these gaps has an enormous impact on perceived benefits and derivation of Net Present Value (NPV), thus accurate representation of gaps is of paramount importance. Otherwise, the NPV and related costs are misinformed and the basis for approving such a large-scale project becomes less sound.

- 1 - Inability to manage service-related spend 4 2
- 2 - Limited contract management 4 3
- 3 - Limited ability to manage inventory levels 4 4
- 4 - Limited ability to manage individual supplier performance 4 4
- 5 - Difficulty managing the supply chain for capital projects 4 0
- 6 - Lack of order, delivery and payment tracking 4 3
- 7 - Inability to support sales and returns of unused materials 4 3
- 8 - Inability to support pre-packaging of materials for field crews 4 4
- 9 - Lack of wireless access to inventory information 4 4
- 10 - No self-serve option for routine service requests 4 3
- 11 - Inability to pay suppliers without an invoice 4 1
- 12 - Inability to streamline controls and approvals process 3 2
- 13 - Inability to integrate the work management systems 3 3
- Total Score (out of 52) 50 SAP vs 36 Asset Suite (or Passport)**

1.1. ABB’s evidence responds to the 13 gaps BC Hydro identified for scoring. Are there any advantages that ABB’s software delivers that are not included in the software gaps being considered by BC Hydro that ABB believes would be beneficial for BC Hydro and should have been considered?

1.1.1. If yes, please identify those benefits and explain why ABB believes BC Hydro could benefit from those advantages.

1.1.1.1. If yes, what, if any, activities has ABB undertaken to outline these benefits to BC Hydro prior to this application.

1.2. ABB objects to many of its ratings in its evidence. Does it object to any of BC Hydro's ratings for the SAP platform?

1.2.1. If yes, please identify those items which ABB would re-score for SAP.

1.2.1.1. If yes, please provide ABB's ratings for SAP where it would change the rating, and provide justification for any changes.

1.2.2. Reference: Exhibit C3-3, page 3

The Asset Suite Contract Management application provides a standard approach for requesting contract services and effectively managing all aspects of the contract process. Contract Management provides the functionality to request, create, and manage standard contracts, blanket master contracts, and contract releases. The contract processing flow may include contract requisitions and requests for proposals (RFPs). Processes to plan and approximate resource costs, create milestones to track the progress of work being performed for a contract, and create payment authorizations that allow accounts payable to make a progress or full payment are included as part of the Contract Management application.

Approval and informational routing capabilities are also an integral part of the Contract Management process.

In addition, the Asset Suite Compose tool allows BC Hydro to add, update, or rename fields, which should readily allow for all services to be defined as manageable work units.

For these reasons, it is questionable as to why Asset Suite would score a 2.

1.3. Would ABB score Asset Suite as a 4?

1.3.1. If not, please explain why not.

2. Reference: Exhibit C3-3 page 7

Response:

Asset Suite should not be given a lower score simply because payment processes are already completed in SAP. In fact, in many utilities that use Asset Suite, payments are made in systems ranging from SAP, PeopleSoft, and others (including Accounts Payable service companies). Asset Suite can be used to create the payment (including all audit controls and matching processes). Asset Suite also manages the cost of projects, which are usually sent to the General Ledger (Fixed Asset or General Ledger, depending on the determination of Capital or O&M charges). The record of actual payment can be retained in the system used to actually send the payment, and is not required to be provided to Asset Suite. Despite the comments in the evaluation, this is not a general requirement at any of the utility companies that utilize Asset Suite.

The Asset Suite Accounts Payable application does provide the functionality to organize, monitor and control payment processing for an organization. It provides the ability to enter invoice information, ensure that the invoices are in accordance with the financial rules, and enables cash disbursement processing and payment reconciliation. Extracts are available to provide Accounts Payable information to other applications.

2.1. Are the gaps evaluated by BC Hydro considered to be 'general requirements' of utility companies?

2.1.1. If no, please identify those gaps which would not typically be considered 'general requirements' and provide a brief discussion of why ABB is of this view.

3. Reference: Exhibit C3-3 page 2 and page 9

- 1 - Inability to manage service-related spend 4 2
- 2 - Limited contract management 4 3
- 3 - Limited ability to manage inventory levels 4 4
- 4 - Limited ability to manage individual supplier performance 4 4
- 5 - Difficulty managing the supply chain for capital projects 4 0
- 6 - Lack of order, delivery and payment tracking 4 3
- 7 - Inability to support sales and returns of unused materials 4 3
- 8 - Inability to support pre-packaging of materials for field crews 4 4
- 9 - Lack of wireless access to inventory information 4 4
- 10 - No self-serve option for routine service requests 4 3
- 11 - Inability to pay suppliers without an invoice 4 1
- 12 - Inability to streamline controls and approvals process 3 2
- 13 - Inability to integrate the work management systems 3 3
- Total Score (out of 52) 50 SAP vs 36 Asset Suite (or Passport)**

9 - Lack of wireless access to inventory information

Response:

ABB's Asset Suite has a number of mobile-enabled applications, including AnyWare for Inventory (AWI), Action Manager, and Mobile Approvals.

AWI allows warehouse personnel to perform duties, such as Material Picks, Cycle Counts, Material Returns, and Bin Movement.

Action Manager is a personal productivity app to support work and service requests.

Mobile Approvals allows users to support actions related to work orders, invoices, timesheets, contracts, etc.

- 3.1. Please confirm that Asset Suite was provided with a '4' for Gap 9, as was SAP.
- 3.2. Are there areas of distinction which Asset Suite offers that SAP does not offer? If so, please provide with a brief explanation.

4. Reference: Exhibit C3-3, page 9

10 - No self-serve option for routine service requests

13 Automation of routine procurement is dependent on a services catalogue and an
 14 easy user interface to navigate and workflow. Given that Alternative 2 (PassPort)
 15 has more limited services catalogue capability than SAP, it scored 3 while
 16 Alternative 1 (SAP) scored 4.

Response:

It is unclear why Asset Suite is perceived as having a more limited services catalogue, or why this couldn't be automated in Asset Suite?

- 4.1. Please provide a brief discussion on its Services catalogue and why it is not 'more limited' than SAP's catalogue.
- 4.2. Please confirm that ABB would score PassPort a '4' in this criterion.
 - 4.2.1. If not confirmed, please explain why not.

5. Reference: Exhibit C3-3, pages 9-10

11 - Inability to pay suppliers without an invoice

The functionality to pay a supplier without an invoice is called Evaluated Receipt

18 Settlement (ERS). PassPort does not have ERS capability although some limited capability could likely be custom developed in PassPort. As a result, Alternative 2 (PassPort) scored 1, while Alternative 1 (SAP) scored 4.

Response:

This analysis is simply incorrect. Asset Suite can be used as the utility client requires, and ERS can be accommodated if the utility customer requires it. As shown in the following paragraphs, the Accounts Payable application software is very comprehensive and flexible, and although paying a supplier without an invoice is usually not "best practice", it is often "common practice" in some utilities, requiring controls and reporting unique to this situation. The software can be configured for this capability through business process design as the software is implemented.

5.1. Would ABB rate Passport as a '4' for this criterion?

5.1.1. If not, please provide the rating that ABB would provide and explain why.

6. Reference: Exhibit C3-3, pages 12-13

12 - Inability to streamline controls and approvals process

3 Closing this capability gap requires work to be managed, including approval, in a
4 single system. Alternative 1 (SAP) will largely allow the financial control and
5 approval of work to occur in SAP. Alternative 1 (SAP) will not fully allow the closure
6 of this capability gap because certain work (Distribution Design Work and
7 Generation & Transmission Stations) will remain in PassPort unless and until Work
8 Management and Asset Management are undertaken in SAP. Alternative 1 (SAP)

9 was given a score of 3. Alternative 2 (PassPort) was given a score of 2 as much of
10 the work will never be managed in PassPort and there is no Human Resources
11 module in PassPort to support the use of organizational roles to determine approval
12 authority.

6.1. What ratings would ABB provide for Passport for this criterion?

7. Reference: Exhibit C3-3, page 13

13 - Inability to integrate the work management systems

13 Multiple systems exist today to manage work at BC Hydro, all of which are currently
14 integrated with SAP. Additional integration could be built between SAP and PassPort
15 as well as the other systems that support work to partially meet this objective.

16 However, full seamless integration of work management systems for BC Hydro's
17 many different types of work is not possible. As a result, Alternative 2 (PassPort)
18 was given a score of 3.

19 While deploying SAP would provide some initial benefits, some future effort to put all
20 work orders in SAP would still be required. As a result of the remaining work,

21 Alternative 1 (SAP) was also given a score of 3.

Response:

It is unclear which types of work are perceived as not being supported in Asset Suite, nor why full integration is deemed as "not possible." ABB also has a mobile workforce management system, Service Suite, to manage scheduling and dispatch of work to the field.

- 7.1. Please confirm that ABB would rescore Passport to a '4'.
7.1.1. If not, please explain why not.

8. Reference: Exhibit C3-3 page 14

Business Risk

The assumptions around business risk listed are incorrect. There is no reason that an Asset Suite upgrade would pose a greater business risk, if executive leadership supports the upgrade and the project is well designed and executed. Further, the reasoning in this decision was made without any engagement with the Asset Suite software vendor and without a proposal on how to implement the project. Specifically:

1. Change management will equally be a part of either an SAP transition or an Asset Suite upgrade;
2. Asset Suite can flexibly manage business processes, perhaps even more so than SAP, and the Asset Suite software owner generally urges its customers to utilize "best practice", which are codified and shared with customers during every implementation. There is little risk that a utility would be restricted in any manner from achieving best practice, unless local situations dictate deviations.

- 8.1. Please elaborate on why it is possible that Asset Suite might be able to flexibly manage business practices better than SAP.
- 8.2. Please give examples of the types of 'local situations' which could dictate deviations and would restrict the utility from achieving best practice.
- 8.2.1. Would such local deviations equally affect the utility if it were using SAP? Please explain why or why not.

9. Reference: Exhibit C3-3, page 14

Technology Risk

The statement that an Asset Suite upgrade would result in greater IT complexity and greater challenges around future modification is simply erroneous. The Asset Suite 9 platform has actually proven to be a lower-cost technology platform to support, easing future upgrades by taking advantage of current technologies and leveraging tools that allow the configuration of the software without heavy customization costs. In short, with Asset Suite 9, ABB's ultimate goal is to "future-proof" the software, meaning that all code is "Generally Available", enabling future patches and upgrades to progress in an efficient, cost-effective manner.

- 9.1. Please provide evidence to support ABB's claim that Asset Suite 9 platform has proven to be a lower-cost technology platform to support than SAP.

10. Reference: Exhibit C3-3, page 14

Project Delivery Risk

ABB works with a number of Systems Integrators, including Deloitte, PricewaterhouseCoopers, Accenture, and potentially others, as well as other niche partners (e.g., Trinoor, whom BC Hydro engages today). While there may not be as many people in the marketplace with Asset Suite implementation experience, the software is significantly used around the world in a variety of utility specific situations. In point of fact, Asset Suite projects generally require much less time with smaller team sizes than SAP (often at a much smaller fraction of cost).

- 10.1. Please provide ABB's evidence that Asset Suite projects generally require much less time with smaller team sizes than SAP (often at a much smaller fraction of cost).
- 10.2. Please provide an approximation of the value of cost savings that could be achieved with Asset Suite as a result of the smaller team sizes and shorter time commitment.

11. Reference: Exhibit C3-3, page 15

In the Conclusion, Section 3.3.7, BC Hydro states that Alternative 1 (SAP) is the preferred alternative, based on a number of factors, many of which are misleading, overstated, or simply untrue. Related to the "Common Platform Strategy", it may be worth noting that many of SAP's modules are actually acquisitions it has made from smaller companies, which create the perception of a "Common Platform." Much of BC Hydro's Supply Chain application touts the merits of a "Common Platform" across all business functions without much discussion around the state of the individual SAP modules and future implications. Having a large "common" platform comprised of modules in various states can actually drive up project and technical costs, as well as future support and upgrade costs.

- 11.1. Please explain how modules 'in various states' can drive up project and technical costs, as well as future support and upgrade costs.
- 11.2. Please provide context in terms of magnitude of expenses that could be accrued as a result of the 'varying states' of the SAP modules.
- 11.3. Please explain how Alternative 2 differs in this regard.

12. Reference: Exhibit C3-3 page 16

1. On page 5 of 289, it's worth noting that the Gartner Magic Quadrant for Energy and Utilities Enterprise Asset Management Software, dated September 2015, was issued prior to ABB's release of Asset Suite 9 platform, an iteration of software culminated from over 30 years of development. The stated caution that "Asset Suite is one of the highest-cost EAM solutions to deploy and maintain" has been addressed with the release of Asset Suite 9 and is no longer true. The secondary caution that ABB is a niche player in the utility market, this is true. Unlike several of our competitors, our software is designed with the needs of a utility in mind. Regarding the stated caution that "There are limited service provider options, mainly ABB itself, and references report resource constraints," ABB has endeavored to strengthen its partner network and EAM practice.

12.1. When was Asset Suite 9 released?

12.2. Please elaborate on the types of activities that ABB has undertaken to strengthen its partner network and EAM practice, and when these activities have taken place.

12.3. Does ABB believe it still has 'resource constraints'?

12.3.1. If no, please explain why not and provide any evidence that ABB may have to support this contention.